

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) An apparatus for molding a mold by pressurizing a foam mixture composed of particles of aggregate, water-soluble binders, and water, and injecting it into a cavity of a heated metal mold, the apparatus comprising:

a hollow rectangular-parallelepiped body having a bottom plate, the bottom plate having an injection hole to inject the foam mixture,

a means for containing the foam mixture having the function of a mixing bath to mix the particles of aggregate, the water-soluble binders, and the water, and as a pressurized vessel to inject the foam mixture into the metal mold, [[and]]

a means for closing and opening the hole to inject the foam mixture[[.]],

a first carriage for moving the means for containing the foam mixture to a position above the metal mold having a cavity,

a pressurizing mechanism for injecting the foam mixture into the cavity of the metal mold through the hole to form a mold in the cavity by pressurizing the foam mixture in the means for containing the foam mixture,

a mechanism for pushing the mold out of the metal mold after molding the mold in the metal mold, and

a second carriage for moving the mechanism for pushing the mold out from a position above the metal mold to a position apart from the metal mold.

2. (Original) An apparatus for molding a mold by pressurizing a foam mixture composed of particles of aggregate, water-soluble binders, and water, and injecting it into a cavity of a heated metal mold, the apparatus comprising:
- a means for measuring a temperature of the particles of aggregate or the foam mixture, and
 - a means for measuring moisture of the foam mixture.
3. (Original) An apparatus according to claim 2, further comprising:
- a means for measuring viscosity of the foam mixture.
4. (Previously presented) An apparatus according to claim 2, further comprising:
- a hollow rectangular-parallelepiped body having a bottom plate, the bottom plate having a hole to inject the foam mixture;
 - a means for containing the foam mixture having the function of a mixing bath to mix the particles of aggregate, the water-soluble binders, and the water, and as a pressurized vessel to inject the foam mixture into the metal mold, and
 - a means for closing and opening the hole to inject the foam mixture.
5. (Previously presented) An apparatus according to any one of claims 2, 3, and 4, wherein the means for measuring a temperature is a contact or noncontact-type thermo-sensor and is disposed in the means for containing the foam mixture or outside the means for containing the foam mixture.
6. (Original) An apparatus according to either claim 3 or 4, wherein the means for measuring viscosity is any of:
- a type of a sensor that presses and inserts a probe for measuring viscosity by measuring a load when a top of the probe is press fitted into the foam mixture,

a type of a sensor that rotates a probe for measuring viscosity by measuring a load when a top of the probe is rotated in the foam mixture,

a type of a sensor that presses, inserts, and rotates a probe for measuring viscosity by measuring a load when a top of the probe is inserted in the foam mixture and is then rotated in the foam mixture; and

a type of sensor that measures apparent viscosity by measuring a flow rate of the foam mixture flowing from an opening of a cylindrical structure when the foam mixture is pressurized.

7. (Original) An apparatus according to claim 6, wherein the means for measuring the viscosity is disposed in the means for containing the foam mixture or outside the means for containing the foam mixture.

8. (Original) An apparatus according to claim 6, wherein the viscosity of the foam mixture is measured continuously or by each batch.

9. (Previously presented) An apparatus according to any one of claims 2, 3, and 4, wherein the means for measuring the moisture is either:

a sensor for measuring an electrical resistance of the foam mixture, or
a sensor for measuring a weight loss of the foam mixture when the moisture is evaporated by heating the foam mixture.

10. (Original) An apparatus according to either claim 3 or 4, the apparatus being provided with a means for measuring a temperature of the particles of aggregate or the foam mixture, and for measuring a viscosity of the foam mixture and moisture of the foam mixture,

wherein any means or any combination of these means is disposed outside the means for containing the foam mixture.

11. (Previously presented) A metal mold used for the apparatus according to claim 2,

wherein the metal mold is used for making a mold by injecting a foam mixture made by mixing the particles of aggregate, more than one kind of water-soluble binder, and water, into the metal mold, and

the metal mold comprising a means for communicating gases from the cavity of the metal mold to the outside of the mold so that the particles of aggregate cannot pass through it being disposed in the metal mold.